

What Is Claimed Is:

1. A wire for arc welding, characterized in that a hardness deviation between a central portion of a cross section and a surface of the wire is less than 18, and that a hardness deviation at intervals of 200mm in a longitudinal direction of the wire is less than 15 when measured by an Hv1 hardness tester.

2. The wire for arc welding of claim 1, wherein the hardness deviation between the central portion of the cross section and the surface of the wire and the hardness deviation in the longitudinal direction of the wire are adjusted by limiting a contact area ratio defined by the following formula to be within the range of 3 – 3.5:

$$\text{Contact area ratio} = \text{Reduction contact ratio} (\text{Reduction contact area/Cross section area of an incoming wire}) + \text{Correction contact ratio} (\text{Correction contact area/Cross section area of an outgoing wire})$$

3. A method of drawing a wire for arc welding claimed in claim 1 to draw the wire to have a desired diameter, the method comprising two final drawing steps of:

reducing a hardness deviation between a central portion of a cross section and a surface of the wire through adjustment of a contact angle of the wire with dies; and

reducing a hardness deviation in a longitudinal direction of the wire through adjustment of a length of a bearing part, in which the wire is corrected.

4. A method of drawing a wire for arc welding claimed in claim 2 to draw the wire to have a desired diameter, the method comprising two final drawing steps of:

reducing a hardness deviation between a central portion of a cross section and a

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surface of the wire through adjustment of a contact angle of the wire with dies; and

reducing a hardness deviation in a longitudinal direction of the wire through adjustment of a length of a bearing part, in which the wire is corrected.

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